ERIC Document Resume	See Instruction Sheet	DATE OF RESUME 10/14/65	DATE RECEIVED

A. PUBLICATION DATA

1. ERIC NUMBER	2. ORIGINATOR CONTROL NO(S).	3. IDENTIFICATION NO.
ED002669	N.A.	2148

DO NOT WRITE IN SPACE BELOW

4. AUTHOR(S): School Management

5. TITLE OF DOCUMENT ABSTRACTED: Language Labs - An Updated Report

6. PUBLICATION TITLE: School Management

MICROFILM COPY AVAILABLE YES ☒ NO ☐

COPYRIGHT GRANTED YES ☒ NO ☐

COPYRIGHT RELEASE FILED YES ☒ NO ☐

TYPE OF REPORT
PROPOSAL ☐
IN-PROGRESS ☐
FINAL ☒
FOLLOW-UP ☐

7. EDITOR(S):	8. PLACE OF ORIGIN
N.A.	ORG.
9. PUBLISHER OR SOURCE: School Management	ST. School Management
	CITY, STATE
	TELE. EXT.
	INST/LOC CODE

OTHER ERIC REFERENCES:

ERIC SATELLITE CODE

10. VOL.	11. PAGES	12. MO./YR.	13. TOTAL PP.
N.A.	86-92	4/63	7

B. INDEXING DATA

14. SUBJECT AREA

15. TYPE OF ENDEAVOR

16. INDEXING TERMS (6-12)

language laboratories	mobile laboratories	instructional technology		
satellite laboratories	schedules			
perimeter laboratories	attention span			
	high school			

17. ABSTRACT (MAX. 250 WORDS) Reports from several school districts on the use and planning of language laboratories are presented. Laboratories should be arranged for flexible use. The average high school student can use a lab profitably for 20 or 25 minutes.

There are three different types of language laboratories that are described. The satellite lab is divided by a glass partition. The regular class work takes place on one side while language lab is conducted on the other side. The perimeter lab has classroom walls lined with plywood booths; the center of the room is undisturbed. Perimeter labs have an economic advantage in that they can be installed for each language classroom for less money than a conventional language lab. The mobile lab carries the perimeter lab idea one step further in that conduit is installed along classroom walls with jacks into which students can plug earphones. The result is a completely mobile lab that can be moved from room to room. A movable console stores the headsets and materials to conduct a lesson. Privacy of booths is lacking, but headsets and mikes afford a sense of isolation. The arrangement allows two rooms to be outfitted for the price of one. Ways of making optimum use of language labs include simplifying wiring systems, providing for pupil privacy, purchasing electronic equipment, and overcoming mechanical and physical problems.

ERIC No.

18. SOURCE OF ABSTRACT

C. FUNDING DATA

19. SUPPORTING ORGANIZATION	20. DIVISION OR DEPT.	21. CONTRACT NO. / PROJECT NO.
	22. TOTAL COST OF PROJECT	
	23. DURATION OF PROJECT	U.S. Department of Health, Education, and Welfare Office of Education

ERIC Form 1

U. S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE
Office of Education

This document has been reproduced exactly as received from the person or organization originating it. Points of view or opinions stated do not necessarily represent official Office of Education position or policy.

INSTRUCTIONAL TECHNOLOGY · U.S.C.

LANGUAGE LABS

AN UPDATED REPORT

10-second summary: *Language laboratories have been with us for more than four years. From an experimental idea they have grown into a near necessity in any high school wishing to give its students a real grounding in the* sound *of a foreign language but, . . .*

. . . *as with any new idea,* mistakes have been made, money wasted, equipment misused. Some teachers have resisted the idea altogether—and some administrators have done a poor job of leadership in this area.

In an eastern school, a beautiful multi-station lab was installed without the consultation of teachers. It is still beautiful and new, albeit dusty. It's been used just once in three years.

In other cases, teachers have become over-enthusiastic and used the tool to distraction, ultimately defeating the very purpose for which it had been intended.

Even after several years of this kind of hit and miss experimentation, there is no complete agreement on how language labs should be used and what equipment does the job best. Nevertheless, some conclusive evidence is building up. For example:

- The average high school student can use a lab profitably for 20 or 25 minutes at most. If he's asked to use it for a full 50-minute period, chances are his incentive, attentiveness and learning rate will decline.
- While the machines can help to teach a language, they can't do the whole job. A competent teacher is a necessity. As a matter of fact, some schools have found they need *more* teachers when using a language lab.
- Reading and writing the language are still important and must be taught.
- The simpler the equipment on each student's desk, the better for the school district.
- Language laboratory equipment can be used for teaching other subjects, as well as languages.

In the following article, SCHOOL MANAGEMENT editors bring you reports from several school districts on the use and planning of language labs. In some cases there is disagreement between the individual articles on what is and what is not best. But in all cases, the articles are based on the experiences—not the theories—of the people writing them.

please turn page

J0277

ED002669

How to make optimum use of a language lab

■ ■ ■ Electronic equipment is both a boon and a bane to high school foreign language departments.

You can't really conduct a modern foreign language program—with its emphasis on listening and speaking—without a language laboratory. But, at the same time these mechanical gadgets create many new problems that must be solved before they can be used effectively. Few administrators really understand—or anticipate—all the potential problems when they sign their first bill of sale.

In Valley Stream, N.Y., school officials not only are aware of most of these problems—they've spent three years trying to lick them. Under the direction of Samuel W. Newman, language department chairman in the district's South High School, Valley Stream's teachers have found ways and means to make their equipment first work, then work efficiently and finally work better.

Newman's experiences began three years ago when the district installed two electronic classrooms in his school. Each room contained 30 pupil-listening positions equipped with headsets and live microphones connected to a teaching console.

To simplify the wiring, separate pupil desks were eliminated. Consequently, there are five long tables in one of the classrooms, with six students at each. In the other room, there are five rows, each with two three-student tables. This arrangement provides two side aisles plus an additional center aisle which allows greater flexibility of movement and creates a less cramped atmosphere.

Pupil privacy is provided by the headsets and live mikes (which feed directly back into the earphones) and also by dividers at each position. The dividers are easily pushed down flush with the table surface. Thus, when the students are through using the lab equipment, they simply push down the dividers, hang up their headsets and go immediately into another activity. This flexibility is a major asset in Valley Stream's electronic classroom set-up.

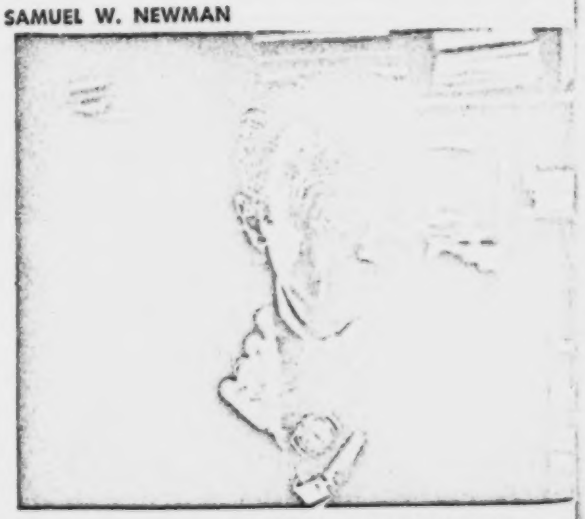
But while the physical setup of a language lab is important, it takes a back seat to a much larger problem that occurs when a district decides to purchase electronic equipment. Whether administrators and board members know it or not, at the moment they commit their schools to the use of language labs, they are also committing them to an entirely new approach to language instruction.

Overcoming mechanical and physical problems is relatively easy. At worst, a few teachers or students may be inconvenienced from time to time. Changing a whole course of instruction, and learning to fit new equipment into that course, is another matter. At best it's a difficult, gear-grinding job that must be handled with care and finesse.

In a recent tape-recorded interview, Language Chairman Newman detailed to SCHOOL MANAGEMENT editors the steps his district has taken to convert its program to make full use of language labs.

It took Valley Stream's schools three years to reach the point where they feel they have a successfully operating program. But Valley Stream was a pioneer in this area. If your district is still waiting to get its feet wet on language laboratory equipment, here's how you can cut the time lag from buying a gadget to making it a major part of your instructional program.

SAMUEL W. NEWMAN



Q Mr. Newman, teachers in your school are making extensive use of electronic equipment in their language courses. Do all of the school's language students use these labs?

A. Under our program, all students start learning a language in the seventh grade. This start is on a non-credit, no homework, audio-lingual basis. Students learn certain fundamentals of speaking the language. In the eighth grade the work is formalized a little more—reading is added—but it is not a full language course. Students in these grades do *not* use the language labs. Starting in the ninth grade, however, every language student can expect to spend some time in a language lab. Exactly how much will vary, depending on the desires of the particular teacher.

Q. When the language labs were first brought into your school, how did you successfully motivate your teachers to use the equipment?

A. Many schools have installed language labs and simply ordered teachers to use them. This doesn't work. It worries the teachers. We approached the subject gradually. Before we got the equipment we gave teachers simple tape recorders to work with. We kept them informed of our plans for electronic classrooms. After we had the equipment installed, we showed them how it works and put the use of the labs on a purely voluntary basis. After a semester, I tried a little persuasion, asking reluctant teachers to try a couple of classes a week in the lab. The next semester I assigned all teachers to the electronic classrooms at one time or another. If they didn't want to use the equipment they didn't have to, but I had them meet their classes there anyway. The semester after that, I strongly suggested that all teachers at least try using the equipment to some extent.

Q. Do all of your teachers use the equipment extensively now?

A. No. There are a few who make little use of it and one teacher doesn't use it at all. The younger teachers are most willing to use it. The older teachers are less willing to change their whole method of

HOW PRACTICAL IS YOUR PROGRAM?

You may have done a bang-up job of procuring modern equipment for your language department, but how "modern" is the content of your language program?

Rightly or wrongly, in most high schools it is the college-bound students who take foreign language courses. With this fact in mind, Principal Milton Wartenburg of Randolph High School, Dover, N.J., recently conducted a survey to determine what kind of a high school language background colleges and universities prefer today. The results of the survey have helped Dover administrators put the emphasis of their language program in the right place.

Here are the questions Dover asked and the answers they received from 72 colleges and universities:

What languages should high schools teach? Latin is not dead. This is the view expressed by nearly eight out of 10 respondents. "Students with a high school Latin background have the best foundation for a college language program," said the department chairman of a Western university. And a number of respondents think that Latin is not the only language that should be taught in high school. Typical of this opinion is the statement of the department chairman of an Eastern school: "It becomes increasingly important for students to have more than one language. Almost all of our students plan to continue work in the graduate program where several languages usually are required."

What is the responsibility of high school language programs? High schools should concentrate on fundamental skills. Seventy-six percent of the college spokesmen consider the teaching of literature and culture the function of college foreign language courses. Twenty-three percent consider it the only function. None of the respondents noted fundamentals as a college goal. Remarked one professor: "College ought to be a place where subjects are taught on a college level. The other things can be taught in other places."

What skills should a high school emphasize? Most colleges prefer high school students to be proficient in speaking and listening. An overwhelming majority rank writing as the least important high school skill, while reading ranks about even with listening. The high position of reading is probably due to its importance on college placement exams (63% of the schools contacted emphasize reading ability on their placement tests). Replied a Mid-western university: "We would give more weight to aural-oral skills were it not so burdensome to test."

How much foreign language should high school students take? Fifty-seven percent of the answering colleges agree that four years of one high school language is the ideal background for students who wish to continue language study in college. Said one professor: "No student should be allowed to take a foreign language course in his first two years of high school unless he agrees to continue it through his final years." Another professor noted: "The ideal would be a four-year sequence of one language (grades nine through 12) and two years of Latin. But the four years of one is most important."

Should high schools use language labs? Almost eight out of 10 colleges contacted have language lab facilities. Eighty-four percent of these use them as a supplement to instruction. Eighty-three percent consider a high school background in the use of lab equipment a distinct advantage.

"You can't force teachers to use language lab equipment."

teaching and who can blame them? It takes a great deal of courage to drop what you've been doing for years to try something new that hasn't been proven. I'm not making an issue of it. The older teachers have been doing a good job with the old method, and I'm not willing to antagonize them. With most teachers, it's just a matter of showing them what the equipment can do. When they realize how effective it is, they become interested in using it.

Q. If teachers decide how much time they want to spend in the classrooms, how do you make out a schedule?

A. We decided to break down the availability of the electronic classrooms into two packages. A teacher could schedule any of her classes in one of the rooms either in a Monday - Tuesday - Wednesday package, or a Thursday-Friday package. Where there is a minimum of enthusiasm, the teacher selects the latter. And, since one teacher doesn't use the classrooms at all, it balances out so that we can arrange a schedule that satisfies all of the teachers. I can foresee the day, however, when all of our teachers will want to make maximum use of the equipment. Then we may have some scheduling difficulties.

Q When a teacher is scheduled into the language lab, does she use the equipment for the whole class period?

A. No. We've found that you can use the lab effectively for only 15 or 20 minutes. Each student works at an optimum level, responding to every situation in his taped "program." At this rate, young people can maintain their attention for only a short time. Ours is not a unique experience. Other schools with language labs have come to the same conclusion.

Q. Mr. Newman, exactly how do your teachers use the electronic equipment?

A. It functions primarily as a medium for what we call "pattern drills." It's also used occasionally to play taped dialogues and phonograph records in conjunction with a motion picture or film strip. There are more sophisticated ways to use equipment, involving tape recorders at the pupil positions, but these are suited more to college level work. For high school purposes, the installations are best used to reinforce speaking and listening skills.

Q. What is a "pattern drill?"

A. It's simply a grammatical structure or a basic sentence that is repeated again and again by a native or professional voice on tape through the console, calling for a certain structural change in the sentence at each repetition. There is a pause after each repetition, during which the students imitate what they're heard, making the necessary structural change. They hear their own pronunciation through their headsets and the teacher can also monitor students individually. After each student responds he hears the correct response by the taped voice, and receives the cue for his next response. By going through these drills, the students memorize structure patterns to the point where their responses are automatic. Eventually, they can fluently say a great many things with near-native pronunciation, ("What would you like to have for lunch?") or ("I'd like a hamburger.") These are the kind of practical sentences we use. In the old way, they memorized rules. Now, they memorize "dialog" phrases or sentences that can actually be used.

Q. How are these pattern drills administered?

A. Lessons are given in units, just as they are in textbooks. Initially, the teacher orally presents a complete unit of material in class, making explanations in English, as a live teaching lesson. Then, *after* this oral presentation, she hands out mimeographed texts and goes over the pronunciation of each item with the class until the students seem to have acquired a basic grasp of the material. That night the students study the content of the mimeographed sheets as homework.

The next day—or whenever the teacher thinks they're ready—the students are given a taped lesson, or drill. The teacher listens in on every student's response and makes a mental note of weak responses. After the tape has reached its end, the teacher will do a re-teaching job if necessary, correct individual mistakes, and answer class questions. The teacher never interrupts students during the drill. We have found that interrupting destroys the student's sense of isolation. It makes him self-conscious and it ruins the continuity of the lesson. Corrections are made *after* the drills. Then, for as many days as the teacher feels necessary, the taped lesson is repeated. When the class appears to have mastered a unit, the students are given a written test, and then the next unit is introduced in a similar manner.

Q. How can you test oral proficiency with a written test?

A. You really can't. This is one of the unsolved problems—how can you test and grade a spoken response? One possible partial solution is a new technique called echo testing. The teacher speaks a sentence and asks the student to repeat it exactly. This may give the teacher a good indication of what the child can do, but you've still got the problem of grading.

Q Where do you get material to use with your language lab? Is it available commercially?

A. Commercial materials are available, but we don't make much use of them. Our basic tool is a pack-

age called Audio-Lingual Materials prepared by the Glastonbury, Conn., public schools under a federal NDEA grant. An ALM unit is a complete package, with taped material and printed text. There are dialogues spoken by native speakers, which are broken down into words and phrases for students to memorize. The ALM units are what I would call semi-commercial, since they are distributed by a major publisher—Harcourt Brace and World, Inc.—but they were developed by a special professional team.

Q. This matter of proper materials must be a big problem. Where do you get effective materials to use with lab equipment aside from commercial sources?

A. We have to create our own. The ALM material is basic in our eighth and ninth grade classes. But our teachers feel, it's inadequate, as most of the commercial materials as well. The experts who prepare the material evidently didn't give enough consideration to the kids who were to use it. Theoretically it's excellent, but it doesn't work out that well. Some of it is too simple and some of it is too complicated. Consequently, we have to put the kids' needs into the material, molding it more closely to the practical classroom situation and to particular grade levels. When you really come down to it, our most effective material is that which we make ourselves.

Q. How much time do your teachers devote to making materials?

A. Well, here we're in hot water again. It takes almost two hours for a teacher to create material that runs for 15 minutes and it's not an easy task. To find the time and facilities for teachers to make materials during working hours is a real administrative problem. Several years ago, the board of education hired three of us to spend a summer preparing tapes and texts. Some of that material is in use today. Some of it is not because some of us really didn't know enough about how to make useful material.

Some teachers spend a good deal of their own time on this, but how much can you ask of your teachers? I'm recommending for next year that one teacher be relieved of one class to give her that time to make tapes. We'll probably need to hire another teacher. You know, using a language lab is no substitute for teachers. Actually, to use the labs effectively, we need more teachers, not less.

Q. You mentioned earlier that the lab equipment was never used for a full class period. What does a teacher do during the rest of the time she is assigned to the lab?

A. You've got to remember that the language lab equipment takes care of only hearing and speaking. We've still got reading and writing to be concerned about. During the other part of the period, and on days when a class is not in the electronic room, time is devoted to these areas. We use a workbook and a textbook in all of our classes. Students still have to know their verbs. They have to be able to translate. They need to know a certain amount of so-called culture and civilization. So, there's a good deal of work that must be accomplished aside from the audio-lingual phase of the program.

Q. Suppose a student feels that he needs—or would like—more time in the lab? How is this handled?

A. Students who want to use the lab more than their schedule allows are free to come in after school. The rooms are available then, by arrangement with their teachers.

Q. You took pains to help your teachers make an easy adjustment to the equipment. How about your students? Don't these repetitive drills bore them to tears?

A. Exclusively repetitive drills are certainly boring. We've found that by varying drill structures slightly, we can keep their interest high. We change the subject of a sentence each time it is repeated, for example. Then we vary a verb, and so on, keeping the basic structure that we want the student to learn. The very nature of the pattern drills keeps the students on their toes.

In the old pre-lab approach, the student was called upon to respond to questions only occasionally. Now he must respond every time. And he knows that the teacher is monitoring each student. Students have to work constantly. This is why we can only use the equipment for short periods.

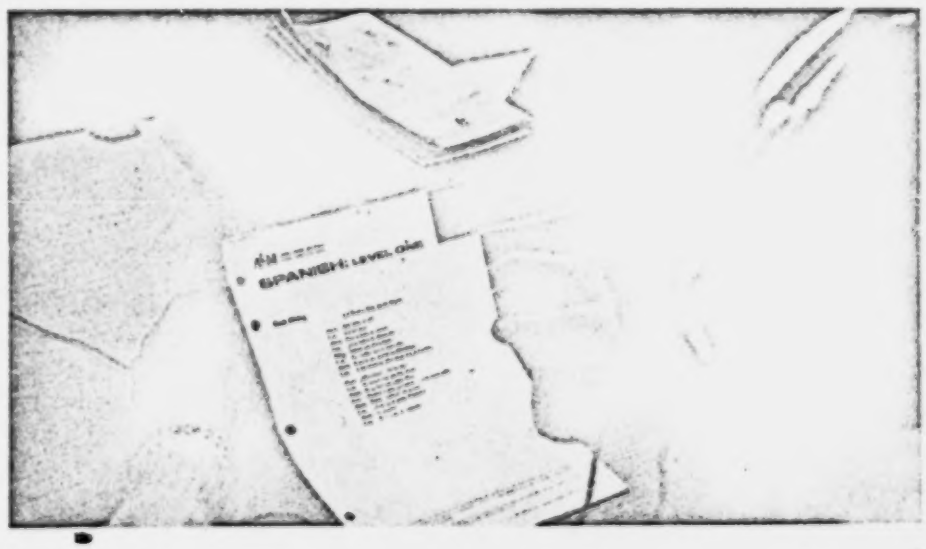
Q. Does the electronic equipment help the beginning student more than the third or fourth year student?

A. A student is capable of a certain amount of progress at every level. You get basic pronunciation at the first-year level and you get refinements of intonation at the third-year level. But the problems are more or less equal, as far as the individual student is concerned.

Q. Do you ever run the equipment without the teacher in the classroom?

A. Never. The teacher must be present in the classroom, working at a high level of efficiency every minute. Remember, the equipment does not simplify the teacher's job; it complicates it. It's much

continued on page 90



easier to teach in the old manner, but it's not nearly as effective. That's why, initially, it's important to do a good job of motivating teachers to use the installations.

Q. How do you maintain the equipment?

A. We've had contract maintenance people taking care of the installations, but we're constantly badgered with mechanical problems. It's only three weeks, now, since we've had a service call and already in one of the rooms 10 pupil positions require attention. This creates a difficult situation because we have to double up students and you just can't operate effectively under those circumstances. What we need—and what we'll probably never get—is foolproof electronic equipment. However, this whole language lab concept is still evolving and I suppose we just have to be patient and live with these problems.

LANGUAGE LABS: AN UPDATED REPORT

How to house the facilities you need

Once a district has made the decision to install a language laboratory, it must decide how it wants to house this facility. When these laboratories first came into prominence, the tendency was to take a regular classroom and convert it into an electronic room. But this had two major drawbacks. First, the school lost a valuable classroom. Second, teachers found that students could not use a full period in a lab situation. But the original labs were seldom constructed in such a way that other activities could take place in their rooms.

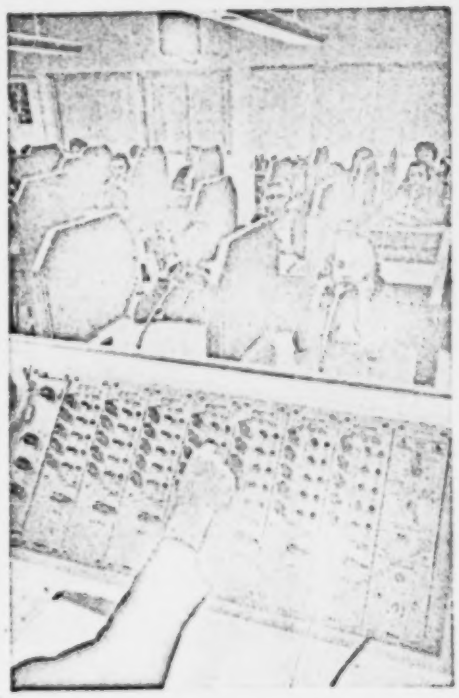
Many attacks have been made on this problem. They range from special lab rooms with fold-down partitions, to individual listening carrels used by a student on his own time. Detailed here are three separate solutions found to the same problem.

SAN DIEGO, CALIF.

1. The satellite lab

Q What with problems with the equipment, lack of materials, the need to motivate teachers and students and lack of time, aren't you about ready to put a torch to your two classrooms now?

A. No, not at all. The language teacher used to work his heart out and the results were always far from perfect. Using this equipment, the results have taken a tremendous step forward. Our students are able to understand and to speak and even to read on a much more effective level than ever before. More is demanded of the students, and of the teachers. But the added effort is paying off handsomely. We're very excited about the new order of achievement in all of our languages. This step forward is due, in large part, to the increasingly effective use of the equipment and of the materials. Certainly there are problems, as there always are with anything new. But they are being met by intensely interested school people all over the country. And here in Valley Stream, at least, they are being licked.



In the larger seating area of the satellite lab, one class goes through speaking drills, monitored through console by teacher.

Before drawing up language laboratory plans for two new high schools, the San Diego City school system had some of its teachers experiment with a standard laboratory situation. They found the setup to be inflexible, impractical and useful only on a resource basis. This experience was instrumental in the development of the special labs built into two new schools when they opened last fall.

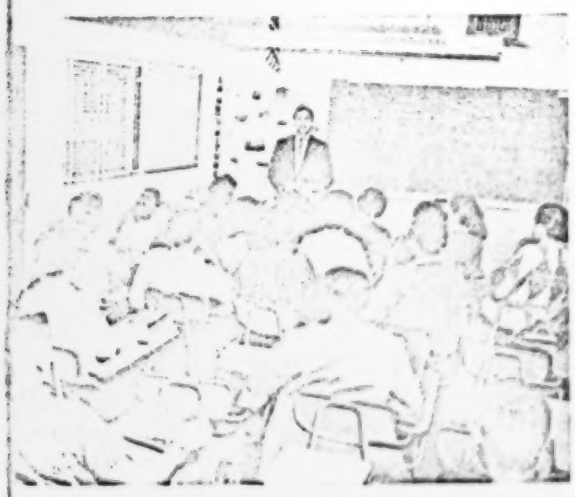
As described by Principal Thomas E. Watt of Samuel F. B. Morse High School, these functionally designed "satellite labs" (see sketch) provide two seating areas. One small room is equipped with tablet-arm chairs for general class meetings and a larger room is equipped with individual booths and lab equipment. The rooms are divided by a glass partition with two doors.

With an excellent view through the glass partition, the teacher can supervise group and individual activities simultaneously. Listen-re-

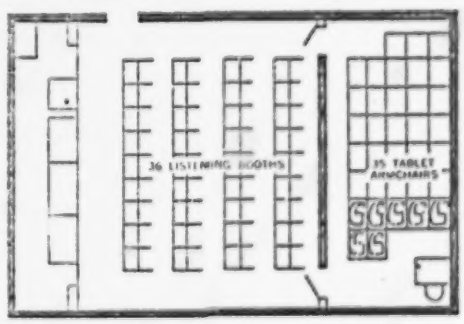
spond activities can be carried on by one class (of up to 32 students) in the lab area while another class works on reading writing and other activities.

At mid-period, or whenever the teacher prefers, the two groups exchange places. In this way, both groups receive the necessary variety of experience during one class period, in the one divided room, using one lab installation, with one teacher. To have provided equal opportunities any other way, would have necessitated doubling the amount of equipment installed.

The satellite concept may not answer the problems of other districts, but it works in San Diego. The important thing is, San Diego's teachers ascertained the space problem and found an answer before it was too late to do anything about it.

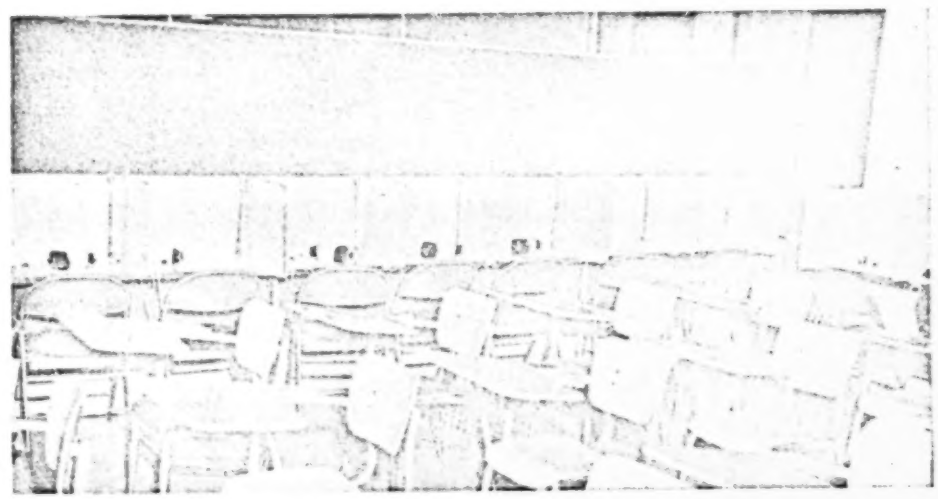


At mid-period, these students, working on reading activities in the smaller area, exchange places with the other class in lab.



Classes pass through doors on either side of partition.

2. The perimeter lab



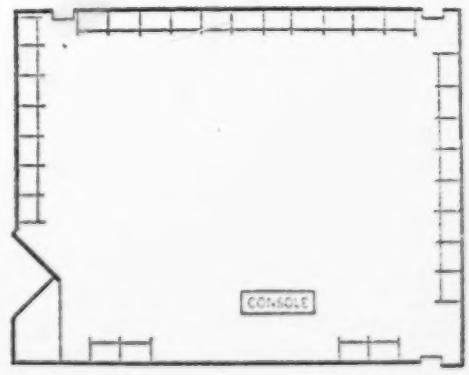
Two-feet-wide, permanent booths contain only headsets and live mikes. With no visual distractions, students concentrate wholly on lessons.

The audio-visual director and the teachers of Arlington Heights High School wanted no part of a conventional language laboratory. Many had experienced first-hand, in other schools, the problems that such installations cause.

Instead, they campaigned for —and got—perimeter labs that are installed in four regular classrooms. Permanent plywood booths were built along the side and back walls. Since the only student equipment required is a headset and a live mike, the booths are just two feet wide. The middle of the room is occupied by regular classroom desks.

The console consists of two tape recorders, a record player and the teacher's control center located on top of a four-wheeled projection table. Though the table can be easily moved to the side of the room when not in use, it is small enough so that most teachers leave it by the side of their desks.

Classes are conducted normally, in each classroom as though the equipment were not there. When the teacher wants to give a class speaking and listening drills, the students move from their seats to the perimeter booths and sit facing the walls. With no visual distractions to mar their isolation, the teachers find that students maintain an optimum level of concentration and the drills go off like clockwork. When the drill period is over, the students quickly return to their seats and class activities are resumed.



Lining classroom walls with plywood booths leaves center of room undisturbed.

Aside from the practical convenience of the equipment, there is an economic advantage. Perimeter labs were installed for *each* language offered by the school for less money than a conventional language lab would have cost.

continued on next page

SUFFERN, N.Y.

3. The mobile lab

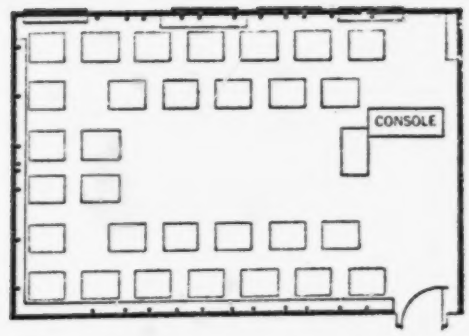
Schoolmen in Suffern, N.Y., carried the perimeter lab idea one step further. Rather than installing fixed booths around each classroom, they arranged to have conduit installed along classroom walls with necessary jacks into which students could plug their earphones. The result is a completely mobile language lab that can be moved about from room to room within the building.

According to Language Teacher C. Benjamin Stevens, the key to the Suffern setup is a console on wheels which also contains enough storage space to house all the necessary headsets and materials needed to conduct a lesson in any one room.

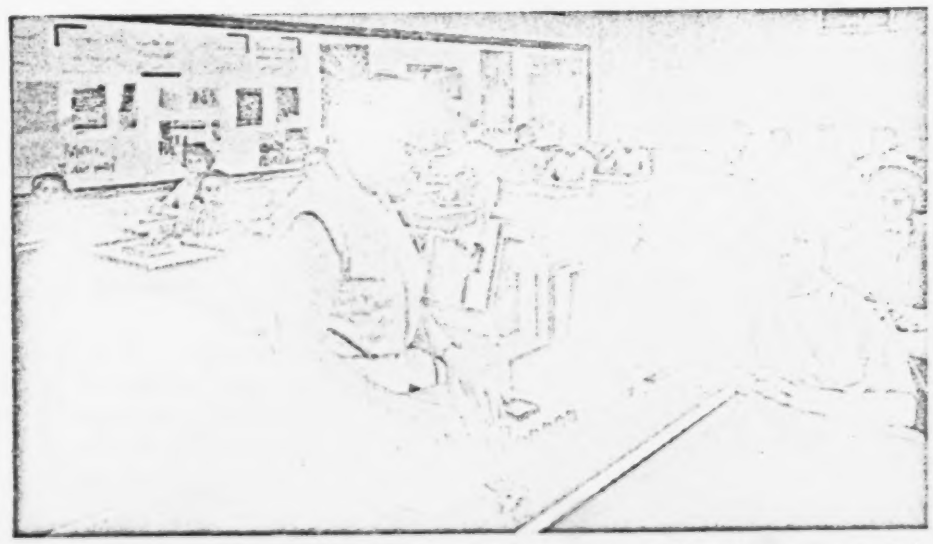
Actually, two rooms are involved in the Suffern setup and every two days the console is alternated between them. The equipment is used for the same listen-respond activities that are employed in conventional labs. Students are arranged for drills—at standard classroom desks—in two parallel rows which form a block "U." The teacher and console are located at the open end of the "U." When drills are over, the electronic gear is quickly collected and put into the console, which is simply pushed to one side. Then the class smoothly and immediately enters another activity. On days when a room is without the console, the headsets and mikes can still be used with an ordinary tape recorder.

The set up suits Suffern's requirements to a "U." While there is a certain lack of privacy that would be amended by booths, the headsets and live mikes do afford a sense of isolation. And teachers feel that the students benefit greatly by watching each other form words. Also, the arrangement allows unobstructed visual supervision by the teachers.

Economically, the arrangement is cheaper than a less flexible setup. Practically, two rooms have been outfitted with equipment for the price of one. **End**

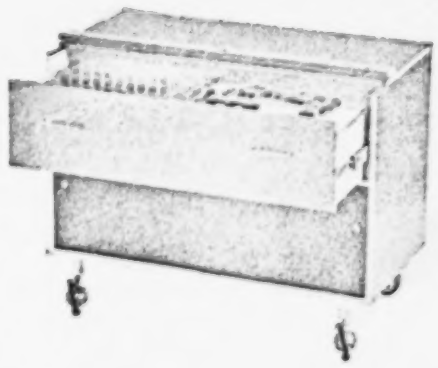


Suffern plan deploys standard classroom desks in a double "U"; eliminates listening booths.



No room is lost to listening booths or dividers. Only marks of a language lab are conduit and jacks around perimeter.

Students plug headsets into jacks *(rear)* ringing the walls.



Everything is contained in compact portable console, which is alternated between rooms.